



Top 10 questions customers ask about Microsoft workloads on AWS

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INTRODUCTION

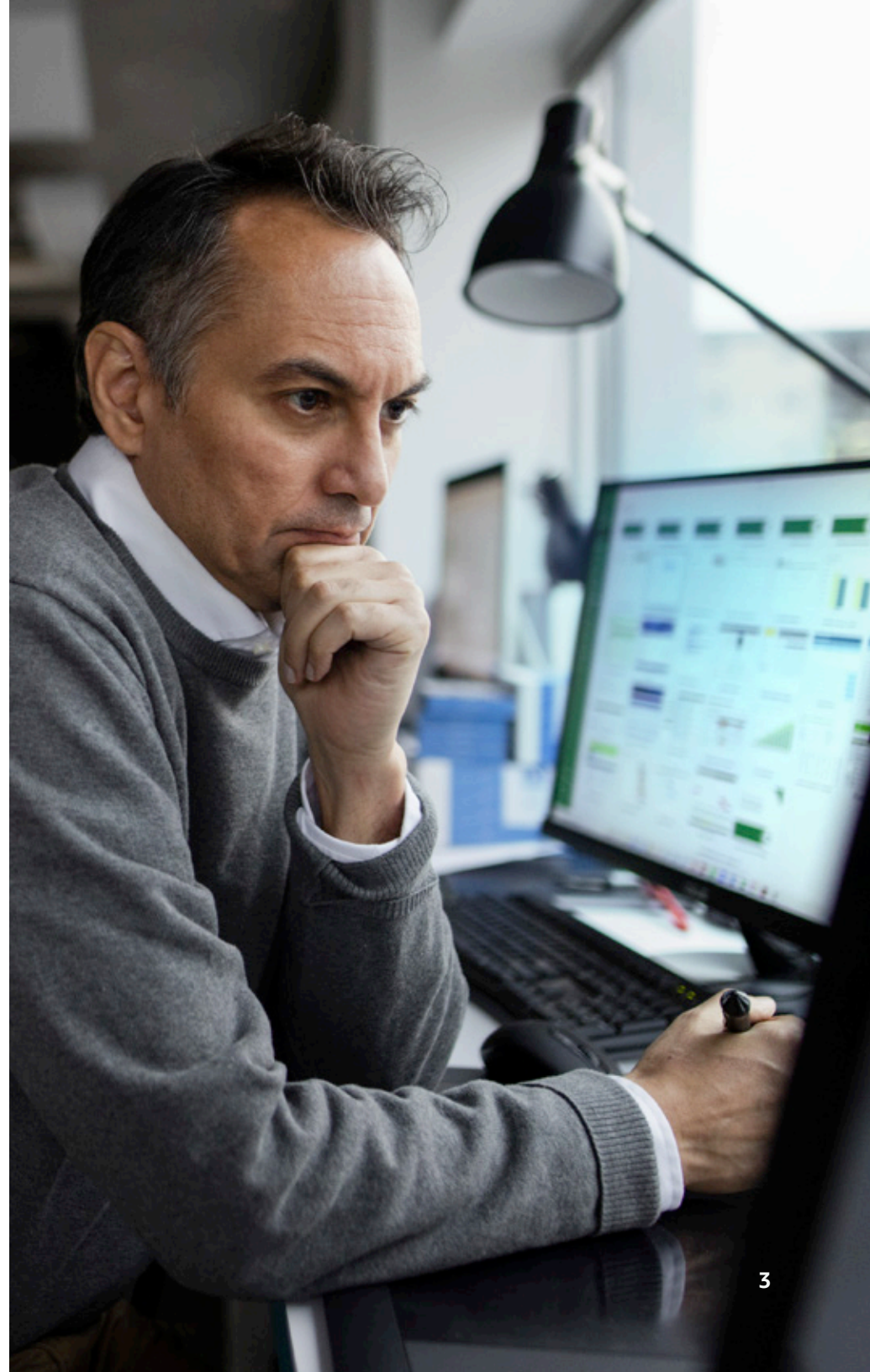
Your top 10 questions— answered

Amazon Web Services (AWS) has been helping customers migrate their Microsoft workloads to the cloud since 2008—longer than any other cloud provider. We have earned the trust of millions of active customers that are now experiencing better performance and reliability, greater security, a lower total cost of ownership (TCO), and flexible licensing options for their Windows Server, SQL Server, and .NET workloads.

From lifting and shifting workloads to moving entire data centers, AWS provides the organizational, operational, and technical capabilities you need for a successful migration to the cloud. And with the deepest set of migration and modernization services, programs, and partners that specialize in Microsoft applications, you can start realizing the business value of AWS quickly.

In this eBook, we answer 10 questions we're often asked about running Microsoft workloads on AWS—ranging from why AWS to the licensing, migration, and optimization options for your Windows Server, SQL Server, and .NET workloads. We've also included our top recommendation for any customer running these workloads on AWS.

Let's get started.



1

Why should we choose AWS to run our Microsoft workloads in the cloud?

| When experience matters, customers choose AWS.

We have been investing in making AWS the best place to run Microsoft workloads since 2008—longer than any other cloud provider—so that we can provide you with the most operational experience, at greater scale, of any cloud.

When license flexibility matters, customers choose AWS. Let's face it—Microsoft licenses are expensive. This is where we can help. AWS offers flexible licensing options for your Microsoft workloads, allowing you to bring your own licenses or pay-as-you-go without signing any contracts or agreements.

And when modernization matters, customers choose AWS. With AWS, you can replace your Microsoft-licensed products and applications with specialized, built-for-the-cloud technologies and break free from the punitive terms and high cost of Microsoft licensing.

We have helped thousands of customers migrate and modernize their Microsoft workloads with AWS. We can help you, too.

2

Can we bring our Microsoft licenses to AWS?

Yes, you can deploy Microsoft applications on AWS by bringing your own licenses (BYOL).

AWS is a Microsoft Authorized License Mobility Partner, so if you have licenses with License Mobility—such as SQL Server with active Software Assurance—you can bring them to Amazon Elastic Compute Cloud (Amazon EC2) on shared tenancy.

You should choose BYOL if you want to:

- Take advantage of cloud efficiencies and leverage your existing licensing investments
- Extend the lifecycle of your software without additional hardware costs
- Expedite your migration to the cloud by using existing virtual machine images

You can also use AWS instances that include the cost of licensing.

By using AWS-provided licenses on Amazon EC2 or Amazon Relational Database Service (Amazon RDS) instances, your Windows Server, SQL Server, Office, and Visual Studio licenses will always be fully compliant.

Choose AWS-provided licenses if you want to:

- Pay as you go with no upfront costs or long-term commitments
- Deploy workloads that scale up and down as needed
- Fully control when you are being billed for license-included instances
- Get out of the business of managing licensing compliance—AWS will do it

Whether you BYOL or use AWS-provided licenses, you can significantly reduce licensing costs through cloud optimization. The more your servers/instances are rightsized for the cloud, the less you pay.

To learn more about Microsoft licensing on AWS, read the [Microsoft licensing FAQ](#). AWS also offers a free [Optimization and Licensing Assessment \(AWS OLA\)](#) program to assess and optimize your on-premises and cloud environments based on actual resources used and third-party licensing.

3

How can we reduce our dependency on Microsoft licensing with AWS?

We get this question all the time. New and existing customers alike are looking for ways to break free from the punitive terms and high cost of Microsoft licensing.

Customers want to lower their costs, harden their security, and improve the price performance of their Microsoft applications. This is where AWS can help. With AWS, you can speed up your innovation—in other words, do more things and do them faster—by replacing your Microsoft-licensed products and applications with open-source alternatives and technology built specifically for the cloud. This could include:

- Moving from Windows Server to Linux
- Porting applications from .NET Framework to .NET
- Decomposing monoliths into microservices
- Implementing DevOps with container and serverless technologies
- Transitioning your data tier to Amazon Aurora and other purpose-built databases

If you're ready to move off legacy licensing and experience ultimate freedom and savings, AWS is ready to assist in your modernization journey.



4

How can we optimize the cost of our Windows Server workloads on AWS?

AWS offers more than 600 generally available secure and resizable compute instances—more than any other cloud provider—with a wide selection of instance types optimized to fit different use cases, including CPU, memory, storage, and networking capacity.

While this gives you the flexibility to choose the appropriate mix of resources for your applications, the over-provisioning of resources on Amazon Elastic Compute Cloud (Amazon EC2) can lead to unnecessary costs and resource consumption.

Here are a few recommendations to help you optimize your costs and lower the TCO for your Windows Server workloads on Amazon EC2:

- **Identify the right instance type.** If you haven't done an AWS Optimization and Licensing Assessment, [start here](#). This free assessment will evaluate your Windows environment and identify ways for you to reduce costs and run your resources more efficiently. AWS also has [rightsizing tools](#) to help you identify over-provisioned resources.
- **Use optimization tools for Windows Server workloads.** AWS offers a broad range of tools that can help you gain insight into your current and future AWS costs:
 - [AWS Compute Optimizer](#) offers valuable insights and suggestions for optimizing workloads, which can result in cost savings up to 25 percent.
 - [AWS Trusted Advisor](#) can help you save costs with actionable recommendations by analyzing usage, configuration, and spend.
 - [AWS Cost Explorer](#) lets you view and analyze your costs and usage. For example, you can view data for the last 12 months, forecast how much you're likely to spend for the next 12 months, and get recommendations on which Savings Plans and Amazon EC2 Reserved Instances to purchase.
- **Select the right Savings Plan.** Savings Plans is a flexible pricing model that can help you reduce your bill by up to 72 percent compared to On-Demand prices, in exchange for a one- or three-year hourly spend commitment. AWS offers three types of Savings Plans: Compute Savings Plans, EC2 Instance Savings Plans, and Amazon SageMaker Savings Plans.



Read more about these recommendations—plus seven more—in the blog post:

[Top 10 Recommendations to Optimize Your Windows Server Workloads on AWS](#) ›

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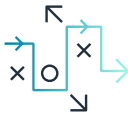
Can we automate the migration of our Microsoft workloads to AWS?

| Yes, we have several tools to help automate your migration to the cloud.



AWS Application Migration Service

This is a free recommended service to help you migrate to AWS. It simplifies and expedites your migration by automatically converting your source servers from physical, virtual, or cloud infrastructure to run natively on AWS. It further simplifies your migration and reduces costs by allowing you to use the same automated process for a wide range of applications, without changes to the applications, their architecture, or the migrated servers.



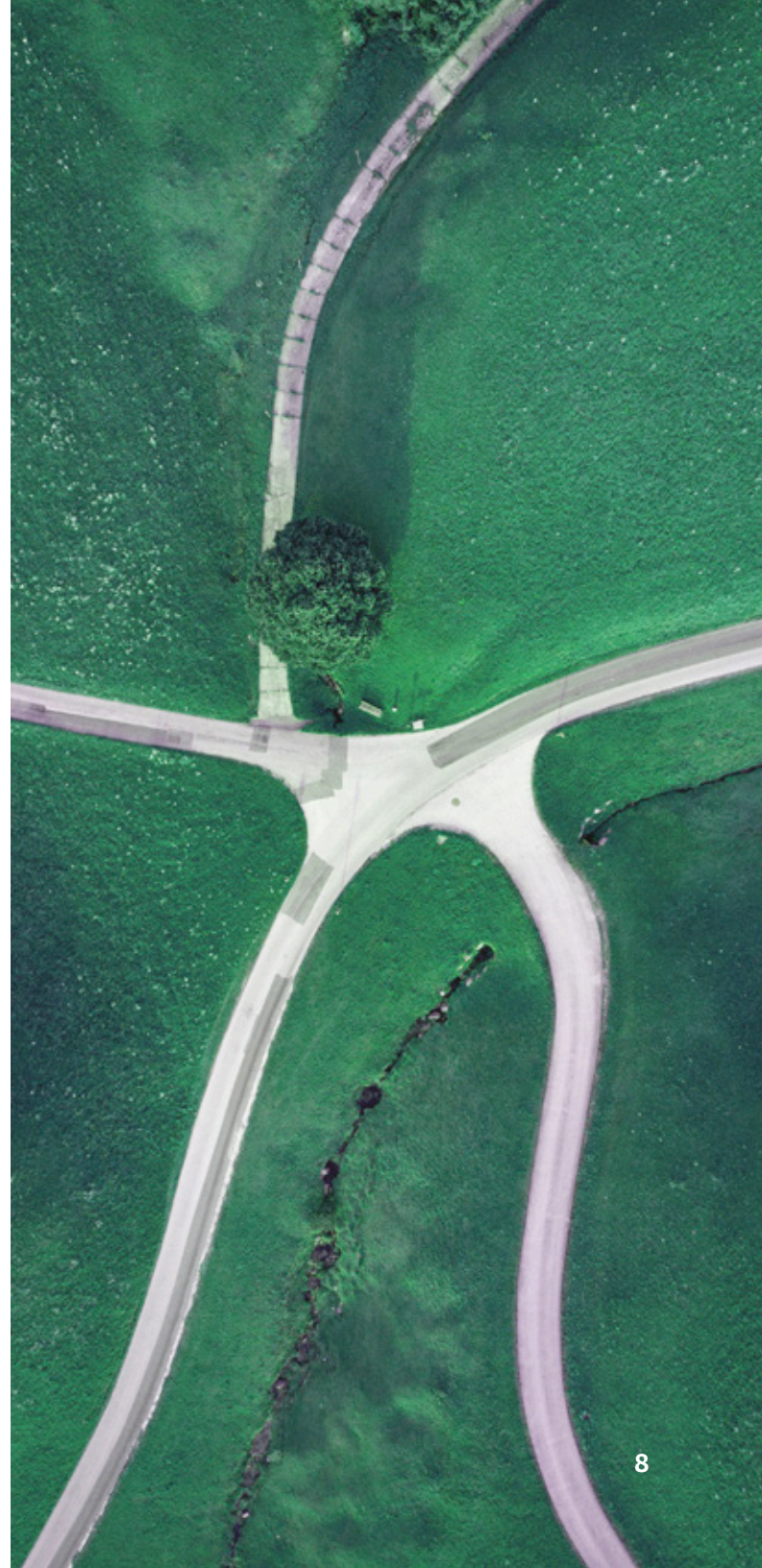
AWS Migration Hub Strategy Recommendations

The AWS Migration Hub helps you easily build a migration and modernization strategy for your applications running on premises or in the AWS Cloud. The Strategy Recommendations feature automates the manual process of analyzing each running application—its process dependencies and technical complexity—to reduce time and effort spent on planning and speed up your business transformation on AWS.



AWS Migration Hub Orchestrator

The Orchestrator feature of the AWS Migration Hub provides a single location to run and track your migrations. The Orchestrator simplifies and automates the migration of servers and enterprise applications to AWS and provides templates to create customizable migration workflows to fit your unique migration requirements.



6

How can we optimize and modernize our SQL Server workloads on AWS?

We know that the high cost of Microsoft licenses for SQL Server, especially SQL Server Enterprise edition, is a point of concern for many of our customers.

Here are a few money-saving recommendations for SQL Server on Amazon EC2 deployments:

- Consolidate small SQL Server databases
- Use SQL Server Developer edition for non-production environments
- Use the Optimize CPU feature to save up to 75 percent

You can also deploy SQL Server on Amazon Relational Database Service (Amazon RDS). With Amazon RDS, you get a fully managed relational database service that makes it easy for you to set up, operate, and scale your SQL Server deployment while significantly reducing your operational overhead.

If you want to use your SQL Server data for some specialized operations, you may want to look at our fully managed **purpose-built cloud databases**. We have 15+ database engines to support a variety of data models, including relational, key value, in-memory, document, wide column, graph, time series, and ledger. We also offer open-source alternatives, such as SQL Server on Linux and Babelfish for Aurora PostgreSQL.



You can read about these recommendations and more in the blog post:

Top 10 Recommendations to Optimize Costs with Your SQL Server Workloads on AWS ›

7

Can we run our .NET applications on AWS?

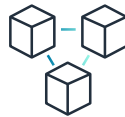
Yes, you can; in fact, we have been supporting .NET in the cloud since 2008.
You can run both your legacy .NET Framework and modern .NET applications on AWS.

Here are some of the ways you can run .NET on AWS:



Migrate

The simplest way to migrate .NET applications to AWS is to rehost them using AWS Elastic Beanstalk or Amazon Elastic Cloud Compute (Amazon EC2).



Containers

With containers, you can bundle your .NET application with its dependencies and configuration, making it easy to port between on premises and the cloud. AWS offers a variety of container services to host your containerized .NET Framework application on Windows or your modern .NET application on Linux. You can use the [AWS App2Container](#) tool to generate a container image for your application.



Modernize

You can modernize your .NET application to a cloud-based architecture to maximize scale and reliability, take advantage of serverless compute, and run on Linux at a reduced cost. The [Porting Assistant for .NET](#) tool helps you port your code to modern .NET, and the [AWS Microservice Extractor for .NET](#) tool simplifies the process of transforming your monolithic application into microservices.



For additional guidance, tools, and community connections, visit:
[.NET on AWS developer hub](#) ›

8

Can we run Windows Server containers on AWS?

Yes, you can run Windows Server containers on AWS, and here are five reasons why you should.

1. Containers are more efficient than virtual machines. They provide better isolation and let you maximize the placement of your applications to increase the utilization of your infrastructure resources and reduce overall cost.
2. It's easier to automate the stages of the development lifecycle (build, test, and deploy). By automating these processes, DevOps teams have more time to focus on innovating.
3. You can modernize legacy applications by using Windows Server containers and running them on a modern infrastructure. This will help you improve the scalability, security, and maintainability of your legacy applications.
4. Containers allow your applications to scale up rapidly, making them useful for applications that require fast expansion or cloud bursting.
5. AWS offers free immersion days to help upskill your development teams on container technology and DevOps practices.



9

How can AWS help us handle end-of-support challenges for Windows Server and SQL Server?

When it comes to migrating, optimizing, and modernizing end-of-support (EOS) workloads, it is imperative to evaluate cloud providers holistically, including factors such as price/performance, reliability, breadth and depth of technology, pace of innovation, flexible licensing options, and programs and tools that help streamline the processes.

Forced decision points like EOS events create a unique opportunity for you to think about the future state of your business, evaluate options and alternatives, and determine which path is right for you. Here are a few of the options you have with AWS:

- **Assess, optimize, migrate, and take advantage of automated upgrades.** AWS often starts with an [AWS Optimization and Licensing Assessment](#) to assess and optimize your current on-premises and cloud environments

based on actual resource utilization, licensing considerations, and application dependencies. After an optimized migration, you can take advantage of automated upgrades with [AWS Systems Manager Automation runbooks](#) for your EOS workloads.

- **Future-proof your legacy Windows Server applications.** To address compatibility and dependency issues, AWS offers the [End-of-Support Migration Program for Windows Server](#) to help you migrate your legacy Windows Server applications to the latest supported versions of Windows Server on AWS, without any code changes.
- **Modernize your workloads to accelerate innovation with open source and cloud-based technologies.** AWS offers [the most robust support](#) and has accelerated the modernization of our customers' legacy applications, infrastructure, and databases to cloud-based and open-source offerings, helping them break free from the software upgrade and refresh cycle.



10

What is your top recommendation for customers wanting to run (or already running) their Microsoft workloads on AWS?

Our top recommendation is to optimize your Microsoft workloads—from both a licensing and infrastructure standpoint—to run in the cloud. If you simply lift and shift your workloads from on premises to the cloud without optimizing, you may miss out on the savings and efficiencies the cloud provides.

For license optimization, AWS offers a free [Optimization and Licensing Assessment \(AWS OLA\)](#) program for both new and existing customers. The AWS OLA gives you the opportunity to assess and optimize your on-premises and cloud environments based on actual resources used and third-party licensing. By understanding your current hardware, application performance, and existing contracts, AWS can provide you with a migration and licensing strategy that will rightsize your resources, provide a clear AWS roadmap, and eliminate costs by using your existing investments and making sure you're only paying for what you need.

If your Microsoft Enterprise Agreement is coming up for renewal or you're running Windows Server or SQL Server versions that are reaching (or have reached) end of support, now is a great time to do an AWS OLA.

Ongoing infrastructure optimization is also key to achieving continuous savings. Our customers use the [AWS Compute Optimizer](#) to make sure they are provisioning instances to match their exact workload demands. This service analyzes the configuration and utilization metrics of your AWS resources, reports whether your resources are optimal, and generates optimization recommendations to reduce the cost and improve the performance of your workloads.

CONCLUSION

When experience matters, customers choose AWS

AWS is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—are using AWS to lower costs, become more agile, and innovate faster.

AWS has significantly more services, and more features within those services, than any other cloud provider, making it faster, easier, and more cost effective to move your existing applications to the cloud and build nearly anything you can imagine. Whether you need to deploy your application workloads across the globe in a single click, or you want to build and deploy specific applications closer to your end users with single-digit millisecond latency, AWS provides you the cloud infrastructure where and when you need it.

Give your Microsoft applications the infrastructure they need to drive the business outcomes you want.

[Request an Optimization and Licensing Assessment today ›](#)